August 22, 2003

Case No.: NL 000045 (7790/214)

Senal No.: 09/781,383 Filed: February 12, 2001

CLAIM AMENDMENTS

Claims 1-16 are currently pending in the application.

Please amend claims 1 and 9 as shown below for non-statutory reasons.

Please add new claims 17 and 18 as shown below.

The following listing of claims 1-18 will replace all prior versions, and listings, of claims in the application:

(Currently Amended) A display device, comprising:

a liquid crystal between a first substrate provided with row or selection electrodes and a second substrate provided with column or data electrodes, in which overlapping parts of said row electrodes and said column electrodes overlapping to define pixels[,];

column drive means for driving the column electrodes in conformity with an image to be displayed[,]; and

row drive means for driving the row electrodes which, in the operating condition, sequentially supply groups of p row electrodes with p mutually orthogonal signals,

wherein the mutually orthogonal signals are obtained from at least two types of orthogonal functions having four elementary units of time, within which four elementary units of time one pulse each time has a first nonzero polarity which opposes a second nonzero polarity of the other pulses.

(Currently Amended) The display device of claim 1, wherein the orthogonal 2. signals are obtained from orthogonal functions having four elementary units of time, within which four elementary units of time the one pulse having the first nonzero polarity which opposes the second nonzero polarity of the other pulses each time shifts by one elementary unit of time.





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(Previously Amended) The display device of claim 1 or 2, wherein the orthogonal signals are obtained from orthogonal functions having four elementary units of time which, viewed in a time sequence, are situated one after the other.

- 4 (Previously Amended) The display device of claim 3, wherein at least two orthogonal signals have opposed DC contents.
- 5. (Previously Amended) The display device of claim 1 or 2, wherein the orthogonal signals are obtained from orthogonal functions having four elementary units of time, in which the elementary units of the orthogonal functions are interwoven.
- 6. (Previously Amended) The display device of claim 1 or 2, wherein p=4, and in that four orthogonal signals have identical DC contents and four are free from a DC voltage.
- 7. (Previously Amended) The display device of claim 6, wherein the DC content of 2 orthogonal signals of the orthogonal signals having an identical DC content is opposed to that of the two other orthogonal signals.
- 8. (Previously Amended) The display device of claim 1 or 2, wherein the said row drive means inverts the orthogonal signals after each frame period.



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(Currently Amended) A display device, comprising:

a plurality of pixels defined by an overlapping of a plurality of row electrodes and a plurality of column electrodes; and

drive means for driving said plurality of row electrodes to sequentially supply groups of p row electrodes with p mutually orthogonal signals,

wherein the p mutually orthogonal signals are obtained from at least two types of orthogonal functions having four elementary units of time, and wherein, for each elementary unit of time, one pulse has a first nonzero polarity that opposes a second nonzero polarity of the other pulses.

- 10. (Currently Amended) The display device of claim 9, wherein the one pulse having the first nonzero polarity which opposes the second nonzero polarity of the other pulses is shifted among the fourth elementary units of time.
- 11. (Previously Added) The display device of claim 9, wherein the four elementary units of time viewed in a time sequence are situated one after the other.
- 12. (Previously Added) The display device of claim 9, wherein at least two orthogonal signals have opposed DC contents.
- 13 (Previously Added) The display device of claim 9, wherein the four elementary units of time are interwoven.
- 14. (Previously Added) The display device of claim 9, wherein p = 4; and

wherein four orthogonal signals have identical DC contents and four orthogonal signals free from a DC voltage.



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15. (Previously Added) The display device of claim 14, the DC content of 2 orthogonal signals of the orthogonal signals having an identical DC content is opposed to that of the two other orthogonal signals.

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16. (Currently Amended) The display device of claim 9, wherein said <u>row</u> drive means inverts the orthogonal signals after each frame period.

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(New) The display device of claim 1,

wherein the first nonzero polarity is a negative polarity; and wherein the second nonzero polarity is a positive polarity.

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18. (New) The display device of claim 9,
wherein the first nonzero polarity is a negative polarity; and
wherein the second nonzero polarity is a positive polarity.